

## ABSTRACT

Methods and systems for end-to-end data protection in a computer are disclosed. A data integrity field is generally associated with data transferred along a data path in a computer. A virtual end-to-end address can be established, which is associated with the data integrity field, wherein the virtual end-to-end address transfers encoded information to a controller of the computer through one or more addresses of a read and/or write request thereof. The encoded information can be utilized to identify an offending entity within the data path. An end-to-end access list can also be associated with the virtual end-to-end address, such that the end-to-end access list contains at least one entry for every data transfer request provided to an interface device. Data corruption is therefore preventable in the entire I/O path in a computer from a host bus adapter through to the actual physical drive.